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ALEXANDRIA, VA 22320

EXAMINER

BUDD, MARK OSBORNE

ART UNIT	PAPER NUMBER
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2834

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 32

Application Number: 09/142,464  
Filing Date: September 9, 1998  
Appellant(s): Oliff & Berridge

OLIFF & BERRIDGE  
For Appellant

**MAILED**  
**FEB 08 2002**  
**GROUP 2800**

**EXAMINER'S ANSWER**

This is in response to appellant's brief on appeal filed 12-31-01.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(3) *Status of Claims***

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The statement of the status of the claims contained in the brief is correct.

Claims 8-13 and 21-26 withdrawn from consideration as not directed to the elected invention.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Invention**

The summary of invention contained in the brief is correct.

**(6) Issues**

The appellant's statement of the issues in the brief is correct.

**(7) Grouping of Claims**

Appellant's brief includes a statement that claims ??? do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

2413579	Penny backer	12-46
WO95/24075	Ogiso	9-95

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**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-7, 14 and 16-20 are rejected under 35 U.S.C. 103 as unpatentable over Ogiso (wo95/24075) in view of Penny backer. Ogiso especially fig. 16 teaches the resonator, holder, supports electrodes and connecting layer but uses a "V" shaped end rather than a "U" shaped end for the support elements. The difference between a U and a V is not seen as patentably significant-merely an ornamental variation. An "A" or "W" would be just as appropriate the idea being to increase surface available for bonding without the danger of entrapped air (if a rectangle or square were used). However, the U shape is well known for connection to a piezoelectric element as evidenced by Penny backer. Selection from among known lead end shapes would be within the skill expected of the routineer. Thus, it would have been obvious to one of ordinary skill in the art to provide Ogiso with U-shaped lead ends.

**(11) *Response to Argument***

Applicant argues that the "V" shape would limit the insertion of the "bump" so it would not contact the 'crotch', wherein with the claimed 'U' the bump could be nestled in the 'crotch'. This would depend on the relative size of the bump and 'U' or 'V'. In a wide 'U' the bump might only contact the bottom and not the side walls of the 'U'; whereas with a 'V' the bump would be firmly cradled by at least two direct contact points. Again, however, it is the increase in available bonding surface that is significant. There may ornamental (esthetic) differences, but that is not the same unobvious. Especially when the exact shape ('U') is

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known for the specific application of piezoelectric resonator support. Note Penny backer shows the 'U' while Ogiso teaches the orientation of the open end.

Regarding the UV Setting type resin. It must be pointed out that it has long been held that selection from among known suitable materials is within the skill expected of the routineer. Further more, once the epoxy is set in the final product there is physical distinction between UV-Setting or any other epoxy - it merely provides the bonding for the joint. Any reference to method steps in the apparatus claim cannot be used to differentiate the claimed structure. Methods of producing are irrelevant to the patentability of a claimed finished product. It is clear from a reading of Ogiso (English Language equivalent U.S. Patent 5869074) that a metal loaded epoxy is preferred as conductive adhesive #26 (see e.g col 11, ln 57-62; col 13 ln 60-67). It is also clear that a UV-Setting resin (epoxy) is contemplated for coupling the piezo resonator to the leads (supports)- see e.g col 9 ln 46-64). All the reasons to use a UV or thermo setting epoxy for the non-conductive adhesive would be just as valid for the conductive resin (no out gassing, no heat applied to the joint etc. etc.).

Applicant criticizes Penny backer for not teaching use of a UV-Setting conductor. However, it is doubtful that such an adhesive was commercially available in 1946. Application of new materials to 'old' (known) structures would have been within the skill expected of the routineer.

Regarding the claim language that reads, "an edge of said piezoelectric resonator element on the side which faces said leads may be positioned on the substantially U-shaped

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edge "(emphasis added). This is only permissive, it does not require nor does it definitely state that the element is positioned on the substantially U-Shaped edge. It certainly does not either imply or limit the claimed device to the edge 5a of the piezo element being aligned or matching same 'edge' of the U-Shaped member.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Conferees: N. Ramirez  
A. Grimley

Budd/PJ  
February 6, 2002

MARK D. BUDD  
PRIMARY EXAMINER  
ART UNIT 212